

McGRATH HEALTH CLINIC



ALASKA RURAL PRIMARY CARE FACILITY ASSESSMENT AND INVENTORY SURVEY REPORT

FEBRUARY 30, 2002



**Tanana Chiefs
Conference, Inc**

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1. EXECUTIVE SUMMARY

A. OVERVIEW

The purpose of this report is to document rural community health program clinic needs. Those needs have been assessed from several perspectives. This is the second stage of the planning and implementation process for improving the quality of rural primary care through capital improvements to community clinics.

The first stage was development of the "Alaska Rural Primary Care Facility Needs Assessment" dated 10/23/2000. The purpose in part of this effort was to establish base lines for the planning and implementation to follow. This second stage is to document rural community health clinic needs and conditions from several perspectives as follows:

- 1) A spatial assessment involving spaces (as-built floor plan) for comparison with pre-established Alaska Rural Primary Care Facility (ARPCF) space basis, as set forth in the ARPCF needs assessment dated 10/23/2000.
- 2) A code and condition survey of the existing facility
- 3) Identification of a site for a new facility (if applicable/decided) and the status of services to that site (road, electricity, water, sewer, etc.).
- 4) Documentation of functional inputs as communicated by local people or observed by the assessment team (Note: functional planning was a component of the needs assessment in the stage 1).
- 5) Development of options to facilitate programmatic and technical needs and deficiencies,
- 6) Costing of those options and
- 7) Recommendations as to the option or options that best address the clinic need and deficiencies¹.

ARPCF clinic basis were standards established in stage 1 based on population. They translate into three clinic sizes as follows:

Small Clinic

Population	20-100
Space Standard	1,535 gsf (heated)

Medium Clinic

Population	101-500
Space Standard	1,989 gsf (heated)

Large Clinic

Population	501+
Space Standard	2,459 gsf (heated) ²

¹ There are only four options available in any rural community as follows: 1) New Facility, 2) Existing Facility renovations and or additions, 3) limited scope renovations and/or additions – driven by committed funding from either capital or operating perspectives (this option is not costable without scope or funding definition), 4) status quo (no change) (note: any of these options can apply to combined facilities existing or envisioned.)

² The intent of the code and condition survey is to identify and cost deficiencies inclusive of spatial deficiencies. The accumulation of those costs is then intended to be compared to the cost of a new clinic. If the costs of renovations and additions exceed 75% of new construction then a new clinic option is considered viable.

McGrath has a population of 401(2000 Census). This places their ARPCF space requirements in the medium clinic size. Current gross square feet of the clinic occupied area, less the ambulance bay, is 1,858 gsf and space requirements under the ARPCF are 1,842 gsf not including mechanical space @ 149 gsf. as the existing clinic does not include it. The McGrath clinic is in a composite facility that consists of a fire station, an ambulance bay, the clinic, city offices, and the water treatment plant. It is essentially a slab on grade, wood frame structure in the clinic area with a second floor city space above the clinic. The composite facility was too large and complex to as built and no drawings existed of the complete building at the time of the survey. Any modifications, renovations, additions, etc. to this facility would require a more thorough investigation of the existing facility. However, this is a substantial structure with little indication of failure, simply worn finishes, and possibly ineffective space allocations.

Contextual community issues and perspectives are as follows:

There is sufficient space to renovate the existing clinic into a medium size clinic by ARPCF standards. The primary concerns with renovating the existing clinic are that the renovations would likely be massive and would likely displace clinic functions during the renovations. Additionally, the community would like to move the clinic towards the center of the community population. The city has a new site in mind where two-thirds of the people in McGrath reside. The proposed site vicinity has all utilities required. The advantage of a new facility is that the old facility could continue in operation until such time as the new facility was complete. The disadvantage is that the city would have to find a user for the old clinic space. Finally, McGrath has a presence in its region that is sub-regional and considers its status differently than simply a community of 401 people. The sub-regional issue is beyond the scope of this analysis.

The existing clinic does not require any additional space, aside from the fact that the entry vestibule really doesn't work from a handicap clearance point of view and is of poor quality construction. Therefore, we would recommend, should this facility be renovated, that a new arctic entry of substantial construction be provided. There is a concern with the ambulance bay opening directly into a space titled "Way station/lab/trauma". Clinicians on site indicated that this Way station/lab/trauma area is not utilized for that purpose because of the cold air and the exhaust fumes from the ambulance bay. Hospitals have similar ambulance bays and trauma areas; however, a vestibule separating the two is normally utilized. Renovation sketches attached to this report show such a vestibule.

B. RENOVATION/UPGRADE AND ADDITION

This option is as previously discussed under A Overview. Its probable impacts are diagramed in drawing A4, which is an overlay of ARPCF spaces onto the existing floor plan. The magnitude of renovations to this facility would require an alternative facility for clinic activities during renovations (3 to 6 months) which when added to the cost of renovation which is already more than new construction indicate that from an economic perspective, new construction is the better choice.

C. NEW CLINIC

This option is as cost summarized in Section A - Overview. It is based on ARPCF space standards set in Stage I of this planning process and as costed under section 6 new clinic analysis of this report for a medium size clinic. The recommendation of the consulting team is for a new clinic. Further we recommend that additional architectural programming be conducted at this site with updated project costing prior to funding.

The community does have a proposed site for a new clinic in a residential neighborhood where two thirds of the residents reside and where utilities are available.

2. GENERAL INFORMATION

A. PURPOSE OF REPORT AND ASSESSMENT PROCESS

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design, and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 3 and 4. The information gathered will be tabulated and analyzed according to an asset of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was revised by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. ASSESSMENT TEAM

The survey was conducted on November 6, 2001 by Robert F. Bezek, Architect, Bezek Durst Seiser, Inc., Charlie Chien M.E. PDC, Inc., Dan Williams from ANTHC, Charlie Woodlee and Teresa Gallagher with Tanana Chiefs Conference, Inc. The village contacts were the Mayor Paula Harris and Subregional Director, Joyce Hughes from the State Department of Public Health, and Jennifer Harrison with Tribal Grant and Chugachmiut. ANTHC made introductions and conducted village briefings to ensure complete understanding of the inspection process. Team members who assisted in the preparation of report from information gathered included members of the field team above and Robert Bezek, Bezek Durst Seiser, Inc., and Charlie Chien M.E. PDC, Inc.

C. REPORT FORMAT

The format adopted is a modified "Deep Look" format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to building code compliance, general facility condition, and spatial deficiencies. The written report includes these evaluations, in addition to sketches of building construction details and identification of potential sites (where available) for a new clinic. This information is available for viewing at ANTHC's Anchorage offices and will be held for reference.

D. SITE INVESTIGATION

On November 6, 2001, the team flew to the site, made observations, took photos and discussed needs with on site personnel for the facility. Approximately three-and-a-half hours were spent on site with

sufficient time to investigate spatial configurations, condition, mechanical and electrical systems and to conduct cursory interviews with staff. Interviews were conducted with Paula Harris, mayor/sub regional director; Joyce Hughes, State Division of Public Health and Community Development; and with a guest, Jennifer Harrison, Tribal Grants Chugiak. ANTHC personnel presented the intent of the Denali Commission and/or ARPCF space guidelines. Those present pointed out the sub regional, functional aspects of McGrath. Despite a population under 500 people, several people felt that McGrath really needed the larger clinic and needed a different configuration of the clinic to meet sub regional considerations. However, this analysis is being conducted around the medium sized ARPCF space requirements.

3. CLINIC INSPECTION SUMMARY

A. COMMUNITY INFORMATION

Population:

- ◆ 401 (2000 Census)
- ◆ 2nd Class City, Unorganized Borough, Iditarod area School District, Doyon Limited

Location: McGrath is located 221 miles northwest of Anchorage and 269 miles southwest of Fairbanks in Interior Alaska. It is adjacent to the Kuskokwim River directly south of its confluence with the Takotna River. It lies at approximately 62d 57m N Latitude, 155d 35m W Longitude. (Sec. 18, T033N, R033W, Seward Meridian.) McGrath is located in the Mt. McKinley Recording District. The area encompasses 48.9 sq. miles of land and 5.7 sq. miles of water.

History: McGrath was a seasonal Upper Kuskokwim Athabaskan village which was used as a meeting and trading place for Big River, Nikolai, Telida and Lake Minchumina residents. The Old Town McGrath site was originally located across the river. In 1904, Abraham Appel established a trading post at the old site. In 1906, gold was discovered in the Innoko District, and at Ganes Creek in 1907. Since McGrath is the northernmost point on the Kuskokwim River accessible by large riverboats, it became a regional supply center. By 1907, a town was established, and was named for Peter McGrath, a local U.S. Marshal. In 1909, the Alaska Commercial Company opened a store. The Iditarod Trail also contributed to McGrath's role as a supply center. From 1911 to 1920, hundreds of people walked and mushed over the Trail on their way to the Ophir gold districts. Mining sharply declined after 1925. After a major flood in 1933, some residents decided to move to the south bank of the River. Changes in the course of the River eventually left the old site on a slough, useless as a river stop. In 1937, the Alaska Commercial Company opened a store at the new location. In 1940, an airstrip was cleared, the FAA built a communications complex, and a school was opened. McGrath became an important refueling stop during World War II, as part of the Lend-Lease Program between the U.S. and Russia. In 1964, a new high school was built, attracting boarding students from nearby villages. The City was incorporated in 1975.

Culture: A little less than half of the population are Athabascans, Eskimos or Aleuts. As a regional center, McGrath offers a variety of employment opportunities, but subsistence remains an important part of the local culture. About 10 families in town have dog teams which they enter into the Iditarod, Kuskokwim 300, and Mail Trail 200 sled dog races.

Economy: McGrath functions as a transportation, communications, and supply center in Interior Alaska. It has a diverse cash economy, and many families rely upon subsistence. Salmon, moose, caribou, bear, and rabbits are utilized. Some residents trap and tend vegetable gardens. The Nixon Fork gold mine located 30 miles northeast of McGrath ceased operations in May 1999 due to low gold prices. 45 year-round employees were laid off, and 5 caretakers remain on the property.

Facilities: McGrath operates a piped water system that serves nearly all 178 households; a few homes have individual wells or haul water. The FAA operates its own water system. Individual septic tanks are used by the majority of residents; a limited City sewage system serves approximately 34 homes. Funds have been requested to expand the piped sewer system to the 144 houses and businesses currently using septic tanks. A private firm, McGrath Trash & Refuse, collects refuse for disposal at the City landfill.

Transportation: There are no road connections to McGrath, but local roads are used by ATVs and trucks. Residents rely on air service and barges deliver heavy cargo during the summer. Air facilities include a State-owned 5,435' paved runway with a 1,700' crosswind landing strip, and a seaplane base on the Kuskokwim River. The airport is currently undergoing major improvements. There is no dock, however, a boat launch ramp is available.

Climate: The McGrath area has a cold, continental climate. Average summer temperatures range from 62 to 80, winters temperatures can range from -64 to 0. Precipitation is light, averaging 10 inches per year, including an average snowfall of 86 inches. The Kuskokwim River is generally ice-free from June through October.

B. GENERAL CLINIC INFORMATION

1) Physical Plant Information

The existing McGrath clinic occupies 1,858 sf, not including the ambulance bay. The estimated date of construction is 1900's. Space standards for medium clinic are 1,989 sf, suggesting that there is a deficiency of 131 gsf. However, mechanical space that provides heat and hot water to the clinic is in another area of the building. Therefore, the amount of gross space utilization at McGrath is comparable to the medium clinic size at 1,989 gsf. Other than general conditions, technically only the fact that the arctic entry is a substandard piece of construction, without a permanent floor and too small, the primary issues are general condition (wear and tear) and the problem with heat and exhaust fumes in what's called the Way station/lab/trauma room. On the functional side, the following items are at issue: the bathroom, of which there is only one, is extremely small, it is not handicap accessible and it is barely accessible by anyone; the janitors room is too small making maintenance difficult; there's a dark room which doesn't appear to have a function. In addition, there are many disproportionate spatial arrangements. The Way station/lab/trauma, which doesn't seem to function that well, has 351 sf, which is 151 sf over the space standards. There's another trauma room which is 223 sf, meaning that there's 574 sf designated as trauma space against a standard of 200 sf. On the other side of the equation, office/exam spaces are very small. Exam two, as it's designated on the existing plan, is only 112 sf. Exam one is only 82 sf. Therefore, spaces are mis-allocated and suggest that if a program can be settled on somewhere between standards and sub regional, a renovation of this space would capture more space in a more functional configuration. A spatial diagram based on the space standards for a medium clinic is attached to this report.

C. PROGRAM DEFICIENCY NARRATIVE

1) Space Requirements and Deficiencies

**SPACE COMPARISON MATRIX
Current McGrath Actual SF to Denali Commission Medium Clinic**

Alaska Rural Primary Care Facility

Purpose / Activity	Designated Itinerant			Current Clinic			Medium Clinic			Difference		
				Actual Net S.F.			ARPCF SF					
	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)	Size	No.	Net Area (SF)
Arctic Entries				49+27	1	76	50	2	100			-24
Waiting/Recep/Closet				100+213	1	313	150	1	150			163
Trauma/Telemed/Exam				351+223	1	574	200	1	200			374
Office/Exam				100+107+112+82	1	401	150	1	150			251
Admin./Records				100	1	100	110	1	110			-10
Pharmacy/Lab				69	2	69	80	1	80			-11
Portable X-ray						0			0			0
Specialty Clinic/Health Ed/Conf.						0	150	1	150			-150
Patient Holding/Sleeping Room						0	80	1	80			-80
Storage				36+26	1	62	100	1	100			-38
HC Toilet				24	1	24	60	2	120			-96
Janitor's Closet				15		15	30	1	30			-15
						0			0			0
						0			0			0
Subtotal Net Area				208		1634			1270			364
Circulation & Net/Gross Conv. @45%				158+66	1	224			572			-348
Subtotal (GSF)						1858			1842			-16
Mechanical Space @ 8%				0	0	0			147			-147
Total Heated Space						1858			1989			-131
Morgue (unheated enclosed space)							30	1	30			-30
Ext. Ramps, Stairs, Loading			HC Accessible			As Required			As Required			As Required

- a. Overall Space Deficiencies: The size of the facility is about equal to the size of the medium clinic per ARPCF space requirements.
- b. Specific Room Deficiencies: Handicap accessible restrooms are deficient or non-existent. Trauma spaces are vastly oversized. Exam room spaces are vastly undersized. There is more office space than the standards would indicate. However, all of these comments need to respect the sub regional function of the McGrath community.
- c. Other Size Issues: The arctic entry is too small and technically deficient.

2) Building Issues

- a. Arctic Entries: The arctic entry to this clinic is too small. The doors nearly collide. It is not a permanent-type construction. The floors are in poor shape. Should this facility be renovated, this arctic entry should be removed and an appropriate one constructed.
- b. Waiting / Reception: The waiting/reception area is spatially inefficient, as a stair comes down from city offices and lands in a manner that creates a diagonal circulation pattern through the space.
- c. Exam / Trauma: As previously discussed, exam/trauma or two trauma rooms are very large, one of which suffers from cold and exhaust from the ambulance bay.
- d. Exam Room: The office/exam rooms are very small.
- e. Office / Administration / Records: There are two offices and a reception area, which has a lot of records in it. The reception area is cramped, poorly space planned.
- f. Pharmacy / Lab: The Way station/trauma area was apparently being used for some lab functions. There is a separate medications room. Therefore, there is not space that is directly related to a pharmacy/lab.
- g. Specialty Clinic / Health Education / Conference: There is no designated space for this activity. The lack of a designated space in a community like McGrath may be unimportant, as there may be space elsewhere in the community.
- h. Patient Holding / Sleeping Room: In a community like McGrath, there are many choices for itinerant staff to stay outside of the clinic. The need for patient holding in a sleeping-type room was not discussed with the persons present.
- i. Storage: The existing floor plan is significantly deficient in any kind of designated storage area or function.
- j. HC Toilet Facilities: As already discussed, there are no handicap toilet facilities. The singular toilet facility that exists is marginal.
- k. Janitors Room: The existing janitors room is insufficient in size to assist in the care and upkeep of this clinic.
- l. Mechanical/Boiler Room: Mechanical/boiler room is not included in the clinic area, as this is a composite facility. See the mechanical report for comment on the mechanical/boiler room.

- m. Ancillary Rooms: The hallway, which connects the reception to the back clinic areas, is constricted in many places. For instance, access to exam room two does not have handicap clearances for the door, which is simply a 2 x 8 door and the door to exam room three collides with the exam table.

3) Functional Design Issues

It is difficult to tell what kind of a spatial configuration McGrath needs. Certainly, against the standards, its spaces are confused. They do not meet the functional size requirements. They are either too large or too small, too many or too few. The ambulance bay is conveniently located to the Way station/lab/trauma; however, fumes and cold are an issue. McGrath's regional function puts in question the applicability of a medium sized clinic space standard at this location.

4) Health Program Issues

- a. Patient comfort and privacy: Our observations are that, due to the small exam room sizes, patients cannot be comfortable. Due to the cold of the Way station/lab/trauma room, patients cannot be comfortable there. Getting to the Way station/lab/trauma area could be an issue, as it passes through the other trauma room.
- b. Medical/Infectious Waste: Medical/infectious waste is flown out.
- c. Infection Control: No reported problem.
- d. Insect and Rodent Control: No reported problem.
- e. Housekeeping: The housekeeping appeared good, despite the obstacle of a very small janitors room. The adjacent ambulance bay may provide additional space for janitorial support items.

5) Utilities

- a. Water Supply: City system - adequate.
- b. Sewage Disposal: City system - adequate.
- c. Electricity: City system - adequate.
- d. Telephone: Overhead lines.
- e. Fuel Oil: Yes.

D. ARCHITECTURAL / STRUCTURAL CONDITION

1) Building Construction

- a. Floor Construction: Slab on grade.
- b. Exterior Wall Construction: Wood frame, assumed 2 x 6; however, renovation drawings suggest that additional furring was placed on the exterior walls.

- c. Roof Construction: This is not applicable, as there is a second story space above the clinic. The framing of floor-ceiling assembly above the clinic could not be determined, other than the fact that we know it is wood frame.
- d. Exterior Doors: The exterior doors are solid core wood with metal frames.
- e. Exterior Windows: The exterior windows are Alaska Windows with thermal glazing.
- f. Exterior Decks, Stairs, and Ramps: There are none, as this is an on grade facility.

2) Interior Construction

- a. Flooring: There is a mix of sheet vinyl, concrete, and carpet as floor finishes.
- b. Walls: Interior partitions are probably 2 x 4 construction. They have gypsum board both sides and are finished with paint. The spatial configuration doesn't particularly create critical sound or privacy issues.
- c. Ceilings: The ceilings are paint over gypsum board.
- d. Interior doors: The interior doors are a combination of solid core and hollow core. Finishes are a mix of paint or clear wood finish.
- e. Casework: Casework is a mix of particleboard cabinetry with plastic laminate and plastic laminate countertops and metal, pre-finished medical clinic industry furnishings.
- f. Furnishings: Furnishings were a mix of new and old, metal and upholstered.
- g. Insulation: Floor insulation is not applicable. Wall insulation is assumed to be at least R-19. Attic and roof insulation is not applicable, as there is a second story above.
- h. Tightness of Construction: As the clinic is an interior space, it is extremely tight.
- i. Arctic Design: As previously discussed, the arctic entry is of poor quality and very small. Aside from that issue, all arctic design considerations seem to have been taken into account.

3) Structural

- a. Foundations: It is assumed that the two outside walls that the clinic shares are conventional concrete or concrete block footings. There were no drawings or ways of ascertaining this exactly.
- b. Walls and Roof: Some walls may be bearing, although no structural drawings were available and there was no access to see which way framing members ran. There is no roof as this is a first story. There is a floor-ceiling assembly; again, that structure could not be determined.
- c. Stairs, Landings, and Ramps: Slab on grade building - not applicable.

E. MECHANICAL CONDITION

1) Heating System

- a. The heating system for the clinic is served by the main building heating system that serves the clinic, city offices, and the water treatment plant.

2) Ventilation System

- a. System: The clinic ventilation system is an extension of the main building ventilation system that serves the clinic, city offices, and the water treatment plant. There are some obvious deficiencies including the lack of vehicle exhaust control system at the ambulance garage bay. Also desired is to provide a separate ventilation system serving exclusively the clinic capable of higher ventilation rates and allows flexibility of clinic operating schedule.
- b. Exhaust Air: The small restroom in the clinic is served by a local exhaust system.

3) Plumbing System

- a. Water System: The clinic water system is an extension of the main building water distribution system that serves the clinic, city offices, and the water treatment plant. There appears to be no backflow prevention devices on the domestic water system serving the clinic.
- b. Sewer System: The clinic sewer system is an extension of the main building sewer system that serves the clinic, city offices, and the water treatment plant.
- c. Fixtures: The fixtures observed at this building are in relatively good condition but the restroom and exam room fixtures do not conform to acceptable American Disability Act access and general patient care requirements.

F. ELECTRICAL CONDITION

1) Electrical Service

- a. The electrical service for this clinic is a 200 amp 208Y/120 volt AC three phase four wire system. The service observed is believed to be that serving primarily the clinic area. However, the areas supplied by the various services appear to overlap in the building. This is a multiple use facility and the electrical services for the different use groups are located in various places around the exterior of the building. This is a violation of NEC 230-2 and 230-72.
- b. The overhead service conductors are routed to the service via a service entrance (SE) cable partially supported under the roof overhang running approximately $\frac{3}{4}$ of the length of the building.

2) Power Distribution

- a. The feeder to the Main Distribution Panel (MDP) consists of four # 1/0 copper conductors and is undersized for a 200 amp feeder per National Electric Code (NEC) 310-15 and Table 310-16.
- b. The Clinic MDP is a 42 circuit Sq. D panelboard the MDP currently has 12 spare breaker spaces.
- c. Branch circuit neutrals and grounds are connected to the neutral bus in the MDP, which is a violation of NEC 250-142b.

- d. The feeder conduit is not mechanically or electrically secured to the MDP in violation of NEC 370-17b and 300-10.
- e. The feeder does not contain a grounding conductor and must rely on the conduit for grounding between the MDP and service equipment.

3) Grounding System

- a. The electrical service does not appear to be bonded to the water line or to ground rods as required per NEC Article 250. Electrical services are required to be bonded to a grounding electrode system with a maximum resistance of 25 ohms.
- b. Interior metal piping of other mechanical systems are required to be bonded to the electrical service per NEC 250-104.

4) Exterior Elements

- a. The clinic does not appear to have any exterior general use receptacles specifically for clinic use. The lack of exterior receptacles usually forces extension cords to be plugged in inside the building and routed through doorways, which is a violation of NEC Article 400.
- b. It is recommended to install individual branch circuits and GFCI protected receptacles for automotive block heaters, commonly known as head bolt heaters.
- c. The clinic does not appear to have exterior lighting dedicated for clinic use.

5) Electrical devices and lighting

- a. Duplex receptacles are the grounding type.
- b. The total number of receptacles does not appear sufficient for the equipment and loads in place in the clinic or for future expansion.
- c. Lighting fixtures throughout the clinic are predominantly 4' surface mounted fluorescent fixtures with wrap around lenses and appear to be in good condition.
- d. The wiring in the clinic appears to be installed in metal raceways. It was not determined at the time of the site visit whether metal raceways with insulated grounding conductors are used in patient care areas. Health Care Facilities are required to have all receptacles and fixed electric equipment, in patient care areas, supplied by circuits in grounded metal raceways with an insulated grounding conductor.

6) Emergency System

- a. Emergency lighting fixtures are installed.
- b. Exit signs are currently installed.

7) Fire Alarm System

- a. Battery operated smoke detectors have been installed through out the clinic.

- b. There is a central fire alarm system in place. This system appears to be part of the building fire alarm system. It was not determined if the central fire alarm system was operational in the clinic at the time of the site visit.
- c. Fire alarm systems, where required by building codes must comply with the provisions of the NEC article 725 and the IBC Section 907.

8) Telecommunication

- a. The Data Telecommunications system currently provides service to the telephone system and the "Telemed" remote diagnostic system.
- b. A wall mounted data cabinet is located on the wall above the filing cabinets in the office
- c. The number of data and telephone outlets is not sufficient for the clinic's current and future needs.

G. CIVIL / UTILITY CONDITION

1) Location of Building

- a. Patient Access: Patient access appeared excellent with the exception of the obstruction of the arctic entry.
- b. Service Access: Appeared excellent.
- c. Other Considerations: It was reported that the river continues to erode its banks affecting the road to this facility.

2) Site Issues

- a. Drainage: Drainage appeared to be good.
- b. Snow: Snow drifting and other wind conditions did not appear to be a problem.

3) Proximity of Adjacent Buildings

- a. As a combined facility it is immediately adjacent to several community services.

4) Utilities

- a. Water Supply: City – adequate.
- b. Sewage Disposal: City – adequate.
- c. Electricity: City - adequate
- d. Telephone: Overhead lines.

H. EXISTING FACILITY FLOOR PLAN (SITE PLAN IF AVAILABLE:

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

- | | |
|----|---------------------------------|
| A1 | Site Plan |
| A2 | Existing Floor Plan |
| A3 | Typical Existing Wall Section |
| A4 | Addition Implication Floor Plan |
| A5 | Medium Clinic Floor Plan |

4. DEFICIENCY EVALUATION

A. DEFICIENCY CODES:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

01 Patient Care: Based on assessment of the facilities ability to support the stated services that are required to be provided at the site. Items required for the patients social environment such as storage, privacy, sensitivity to age or developmental levels, clinical needs, public telephones and furnishings for patient privacy and comfort.

02 Fire and Life Safety: These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated life safety aspects of building codes including the Uniform Building Code, International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code. Deficiencies could include inadequacies in fire barriers, smoke barriers, capacity and means of egress, door ratings, safe harbor, and fire protection equipment not covered in other deficiency codes.

03 General Safety: These deficiencies identify miscellaneous safety issues. These are items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices. Corrective actions required from lack of established health care industry safety practices, and local governing body code safety requirements. I.e. Occupational Safety Health Administration (OSHA) codes & standards.

04 Environmental Quality: Deficiencies based on Federal, State and Local environmental laws and regulations and industry acceptable practices. For example this addresses DEC regulations, hazardous materials and general sanitation.

05 Program Deficiencies: These are deficiencies that show up as variations from space guidelines evaluated through industry practices and observation at the facility site and documented in the facility floor plans. These are items that are required for the delivery of medical services model currently accepted for rural Alaska. This may include space modification requirements, workflow pattern improvements, functional needs, modification or re-alignment of existing space or other items to meet the delivery of quality medical services. (Account for new space additions in DC 06 below)

06 Unmet Supportable Space Needs: These are items that are required to meet the program delivery of the clinic and may not be shown or delineated in the Alaska Primary Care Facility Space Guideline. Program modifications requiring additional supportable space directly related to an expanded program, personnel or equipment shall be identified in this section; for example additional dental space,

specialty clinic, storage, or program support space that requires additional space beyond the established program.

07 Disability Access Deficiencies: The items with this category listing are not in compliance with the Americans with Disabilities Act. This could include non-compliance with accessibility in parking, entrances, toilets, drinking fountains, elevators, telephones, fire alarm, egress and exit access ways, etc.

08 Energy Management: These deficiencies address the efficiency of lighting, heating systems/fuel types and the thermal enclosures of buildings, processes, and are required for energy conservation and good energy management.

09 Plant Management: This category is for items that are required for easy and cost efficient operational and facilities management and maintenance tasks of the physical plant.

10 Architectural M&R: Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, general condition of interiors, and prevention of deterioration of structure and systems.

11 Structural Deficiencies: These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.

12 Mechanical Deficiencies: These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems, interior mechanical utilities, requiring maintenance due to normal wear and tear that would result in system failure.

13 Electrical Deficiencies: These are deficiencies with normal or emergency power, electrical generating and distribution systems, interior electrical and communications utilities, fire alarm systems, power systems and communications systems within a building that should be repaired or replaced on a recurring basis due to normal wear and tear that would otherwise result in system failure.

14 Utilities M&R: This category is used for site utilities for incoming services to facilities that are required for the building to be fully operational. Deficiencies may include sewer and water lines, water wells, water tanks, natural gas and propane storage, electric power and telecommunications distribution, etc.

15 Grounds M&R: Real property grounds components that should be replaced on a recurring basis due to normal wear and tear. Deficiencies with respect to trees, sod, soil erosion, lawn sprinklers, parking, bridges, pedestrian crossings, fences, sidewalks & roadways, and site illumination etc. are considerations.

16 Painting M&R: Any painting project that is large enough to require outside contractors or coordination with other programs.

17 Roof M&R: Deficiencies in roofing, and related systems including openings and drainage.

18 Seismic Mitigation: Deficiencies in seismic structural items or other related issues to seismic design, including material improperly anchored to withstand current seismic requirements effect. The elements under consideration should include the cost incidental to the structural work like architectural and finishes demolition and repairs.

B. PHOTOGRAPHS

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. COST ESTIMATE GENERAL PROVISIONS

1) New Clinic Construction

- a. Base Cost: The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.
 - General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.
 - The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.
- b. Project Cost Factors
 - Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
 - Design Services is included at 10% to cover professional services including engineering and design.
 - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.
- c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.
- d. Estimated Total Project Cost of New Building: This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

2) Remodel, Renovations, and Additions

- a. Base Cost: The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.
 - The cost of Additions to clinics is estimated at a unit cost higher than new clinics due to the complexities of tying into the existing structures.
 - Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.
- b. General Requirements Factor: General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.
- c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.
- d. Contingency for Design Unknowns (Estimating Contingency): The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

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- e. Estimated Total Cost: This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.
- f. Project Cost Factors: Similar to new clinics, the following project factors have been included in Section VI of this report.
- Design Services is included at 10% to cover professional services including engineering and design.
 - Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
 - Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.
- g. Estimated Total Project Cost of Remodel/Addition: This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

5. SUMMARY OF EXISTING CLINIC DEFICIENCIES

The attached sheets document the deficiencies; provide recommendations on how to make repairs or accommodate the needs and provide a cost estimate to accomplish the proposed modifications. The summary addresses individual deficiencies. If all deficiencies were to be addressed in a single construction project there would be cost efficiencies that are not reflected in this tabulation.

These sheets are reports from the Access Data Base of individual Deficiencies that are compiled on individual forms and attached for reference.

Refer to Section VI. New Clinic Analysis for a comparison of remodel/addition to new construction.

6. NEW CLINIC ANALYSIS

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for a community of 401 people (2000 Census). We have also determined the cost of Repair/Renovation & Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 1,989 SF Medium Clinic in McGrath is projected to be:

▪ Base Anchorage Construction Cost per s.f.		\$183
▪ Project Cost Factor:	@ 45%	\$ 82
Medical Equipment	17%	
Construction Contingency	10%	
Design Fees	10%	
Construction Administration	8%	
▪ Multiplier for Village	@ 1.219	\$ 58
Adjusted Cost per SF		\$323

Projected Cost of a New Clinic: 1,989 s.f. x \$323 = **\$644,068**
(not inclusive of site development costs)

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

▪ Code & Condition Repairs/Renovations		
Cost from Deficiency Summary		\$450,846.21
▪ Remodel/Upgrade work (See Def. Code 01)		
100% of clinic 1,858 SF = 1,858 SF @ \$99/SF		\$183,030.58
▪ Additional Space Required by ARPCF (See Def. Code 06)		
○ Base Anchorage Cost		\$226
Medical Equipment		\$ 32
Additional Costs –		\$ 98
General Requirements	20%	
Estimation Contingency	15%	
○ Multiplier for Village	@1.219	\$107
Adjusted Cost per SF		\$463
Total Addition Cost of 0 SF @ \$463		\$0

Projected Cost Factor	@28%	\$177,485.50
Construction Contingency	10%	
Construction Administration	8%	
Design Fees	10%	

Total Cost of remodel/addition **\$811,362**

C. Comparison of Existing Clinic Renovation /Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:

$$\text{\$811,362 / \$644,068} = 1.26 \text{ x cost of New Clinic}$$

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

D. Overall Project Cost Analysis:

The overall project cost analysis below incorporates land, multi-use, utility costs, and road access costs, and project management fees if any are associated with the project.

Item	Quantity	Units	Unit Cost	Area Adjustment Factor	Total Cost	Allowable under "Small" Clinic Process (yes/no)
Primary Care Clinic (Allowable)	1,989	SF	\$265.64	1.219	\$644,068	yes
Clinic (Non-allowable portion)	0	SF	\$265.64	1.219	\$0	no
Land	15,000	SF	\$2.00	1	\$30,000	yes
Multi-Use Facility Design Cost	0	LS	\$0.00	1	\$0	yes
Multi-Use Facility Construction Cost	0	LS	\$0.00	1	\$0	no
Utility Extension/Improvements	1	LS	\$15,000	1	\$15,000	yes
Road access & parking lot improvements	1	LS	\$5,000	1	\$5,000	yes
Subtotal Project Cost					\$694,068	
Project Management Fees					Unknown	
Total Project Cost					Unknown	

7. CONCLUSIONS AND RECOMMENDATIONS

The existing McGrath clinic is located in a combined facility with a concrete slab on grade and a more commercial quality wood frame structure. The clinic is sandwiched in-between other uses in the mid-section of the structure. Its existing spaces are either too small or too big. Their condition is poor. The amount of space aligns with the ARPCF standards but the nature of the community does not align with this profile. Some examples include:

- Itinerant space – the community of McGrath has more than enough accommodations outside of the clinic.
- Physician's Assistant – the community of McGrath functions as a sub regional center. Its clinicians note that its needs and staffing are different than those depicted in the ARPCF standard.
- Overnight (one or more day) patient care – there was discussion of this need at the time of our visit. Due to its sub-regional functioning and weather patients may of necessity be held over one or more days at this location.
- Ambulance Bay – McGrath has ambulance service. The ambulance bay is adjacent and connected to the existing clinic. It is connected to the trauma room.
- Population – The 2000 census has McGrath with a population 401 meaning a medium clinic size. However, McGrath's population seasonally fluctuates to more than 500.

Given these considerations McGrath's functional configuration and size of clinic may need to differ from ARPCF standards.

The analysis of this report has not addressed these issues. This analysis is based on ARPCF standards for a medium clinic based on population alone.

The magnitude of renovations to this facility would require an alternative facility for clinic activities during renovations (3 to 6 months) which when added to the cost of renovation at 1.26 times that of new construction demonstrates from an economic perspective the practicality of new construction.

The recommendation of the consulting team is for a new clinic. Further we recommend that additional architectural programming be conducted at this site with updated project costing prior to funding.

The community does have a site identified for a new clinic in a residential neighborhood where two thirds of the residents reside and utilities are available.

Appendix A: Specific Deficiencies Listings

The attached sheets represent the individual deficiencies identified for this project and the corrective action required to meet current codes and standards of construction. The deficiencies are further summarized in Section V. Summary of Existing Clinic Deficiencies.

Appendix B: Reference Photographs